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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,141	09/23/2003	Sherif Yacoub	200300101-1	2017

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HEWLETT-PACKARD COMPANY  
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EXAMINER
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SAINT CYR, LEONARD

ART UNIT	PAPER NUMBER
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2626

NOTIFICATION DATE	DELIVERY MODE
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09/03/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/668,141	<b>Applicant(s)</b> YACOUB, SHERIF	
	<b>Examiner</b> LEONARD SAINT CYR	<b>Art Unit</b> 2626	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 May 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09/23/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### **Withdrawal of Finality**

1. In view of the supplemental appeal brief filed on 05/15/09, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1 - 20 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues neither Bennett nor Johnson teach assigning the speech utterance to a single ASR engine when the plurality of different ASR engines are busy

such that assessing resources is within a threshold value; assigning the speech utterance to a plurality of different ASR engines when the plurality of different ASR engines are not busy such that assessing resources is within a threshold value (Appeal brief, pages 12 – 20).

***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 2, 5 – 9, 11 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keiller (US Patent 6,975,993) in view of Lo et al., (US Patent 6,798,786).

As per claims 1, 8, and 14, Keiller teaches an automatic speech recognition (ASR), that comprises:

receiving a speech utterance from a user (“receiving speech data”; abstract, lines 1 – 3);

assessing resources of each of a plurality of different ASR engines to determine which of the plurality of different ASR engines are busy serving users (“**speech manager checks...whether there are ASR engines available on personal computers connected to the network**”; col.20, lines 60 – 64);

assigning the speech utterance to a single ASR engine when the plurality of different ASR engines are busy (“**if the answer...is no, then the speech manager**

**selects the speech server selects the speech server ASR engine as the default”;**  
col.20, lines 60 - 64);

assigning the speech utterance to a plurality of different ASR engines when the plurality of different ASR engines are not busy (“**if the answer ...is yes, then the speech manager selects all currently idle ASR engines connected to the network...**”; col.20, lines 20, lines 60 – 67);

generating text of the speech utterance with either the single ASR engine or plurality of ASR engines (“ASR engines to perform speech recognition on the received speech data”; col.20, line 60 –col.21, line 5).

However, Keiller does not specifically teach assigning speech utterance based on assessing resources is within a threshold value.

Lo et al., disclose a method **of managing calls in a telephony system includes defining a plurality of communities each including one or more communication endpoints and assigning one or more usage threshold values** to a link between communities. Further, **a call request is processed based on the one or more usage threshold values** (col.2, lines 3 – 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine whether or not the recognizers are available as taught by Lo et al., in Keiller, because that would help improve method and system to manage the quality of voice calls or other audio communications over data networks (Lo et al., col.1, lines 57 - 59).

As per claims 2, and 9, Keiller in view of Lo et al., further disclose monitoring port utilization for each ASR engine (Keiller, “**speech manager checks...whether there are ASR engines available on personal computers connected to the network**”; col.20, lines 60 – 64).

As per claim 5, Keiller in view of Lo et al., further disclose monitoring a number of users providing speech utterances (Lo et al., “managing calls”; col.1, lines 62 - 66).

As per claim 6, Keiller in view of Lo et al., further disclose assigning the speech utterance to a single ASR engine (Keiller; “**if the answer...is no, then the speech manager selects the speech server selects the speech server ASR engine as the default**”). Keiller in view of Lo et al., do not specifically teach if assessing resources is within a threshold value occurs when port utilization of the single ASR engine is lower than a port utilization threshold of about 80%. However, since Lo et al., disclose that one or more of a plurality of resource elements are selected as candidates for use in the requested call in response to the call request based on usage information of the data network; **assigning one or more usage threshold values to a link between communities**. Further, **a call request is processed based on the one or more usage threshold values** (col.1, line 66 - col.2, line 9). One having ordinary skill in the art at the time the invention was made would have found it obvious to monitor a port utilization threshold in Keiller in view of Lo et al., because that would help improve

method and system to manage the quality of voice calls or other audio communications over data networks (Lo et al., col.1, lines 57 - 59).

As per claim 7, Keiller in view of Lo et al., further disclose assigning the speech utterance to a plurality of different ASR engine (**"if the answer ...is yes, then the speech manager selects all currently idle ASR engines connected to the network..."**; col.20, lines 20, lines 60 – 67). Keiller in view of Lo et al., do not specifically teach if assessing resources port utilization of two ASR engines is lower than a predefined threshold of about 75%. However, since Lo et al., disclose that one or more of a plurality of resource elements are selected as candidates for use in the requested call in response to the call request based on usage information of the data network; **assigning one or more usage threshold values to a link between communities**. Further, **a call request is processed based on the one or more usage threshold values** (col.1, line 66 - col.2, line 9). One having ordinary skill in the art at the time the invention was made would have found it obvious **to monitor a port utilization threshold** in Keiller in view of Lo et al., because that would help improve method and system to manage the quality of voice calls or other audio communications over data networks (Lo et al., col.1, lines 57 - 59).

As per claim 11, Keiller in view of Lo et al., further disclose combining results of ASR engines if the group of ASR engines is selected, the group of ASR engines being adapted to provide a more accurate recognition of the utterance than a single ASR

engine (Keiller; “the results of the speech recognition carried out by each of the selected ASR engines”; col.21, lines 1 – 6).

As per claim 12, Keiller in view of Lo et al., further disclose evaluating resources of the system evaluates resources to simultaneously run multiple ASR engines (Keiller; **“if the answer ...is yes, then the speech manager selects all currently idle ASR engines connected to the network...”**; col.20, lines 20, lines 60 – 67).

As per claim 13, Keiller in view of Lo et al. further disclose evaluating resources of the system evaluates ASR ports, system resources and call handlers (Lo et al; “resource elements...call request based on usage information”; Lo et al., col.1, line 66 - col.2, line 9).

As per claim 15, Keiller in view of Lo et al do not specifically teach selecting an ASR engine that has most available resources. However, since Keiller discloses **if the answer...is no, then the speech manager selects the speech server selects the speech server ASR engine as the default (col.20, lines 60 – 64)**. One having ordinary skill in the art would have found it obvious to select an ASR engine based on most available resources in Keiller in view of Lo et al that would help select the most likely interpretation of received data (Keiller; col.2, lines 5 – 9).



As per claims 16, and 17, Keiller in view of Lo et al., further disclose a telephone network comprising at least one switching service point coupled to the computer system, wherein at least one communication device in communication with the switching service point to provide the speech utterance (Lo et al., "PSTN"; col.3, lines 20 - 25).

As per claims 18 - 20, Keiller in view of Lo et al., further suggest that the resource management application comprises a recognition proxy component and a resource monitoring component, wherein the resource management component collects and analyzes information about the resources available on the system ("resource elements"), and wherein the resource monitoring component mediates between the plurality of ASR engines and the resource management component (Keiller; **"speech manager checks...whether there are ASR engines available on personal computers connected to the network"**; col.20, lines 60 – 64; Lo et al., col.1, line 66 - col.2, line 9).

5. Claims 3, 4, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keiller (US Patent 6,975,993) in view of Lo et al., (US Patent 6,798,786); and further in view of Birkestrand et al., (US PAP 2005/0044228).

As per claims 3, 4 and 10, Keiller in view of Lo et al., do not specifically teach evaluating processing power; monitoring memory utilization and input/output utilization.

Birkestrand et al., teach that the client may need more **processing capacity, memory, hard drive space, etc.**, to keep up with the demands placed on the client's logical partition. **The client may gauge the amount of resources to add based upon usage of current resources and decide that it is time to add the resource when the usage reaches a utilization threshold of the local partition's current resources** (paragraph 8)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to monitor the usage resources as taught by Birkestrand et al., in Keiller in view of Lo et al., because that would help provide more flexibility to host service providers and clients (paragraph 11).

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see PTO-892-Form.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD SAINT CYR whose telephone number is (571) 272-4247. The examiner can normally be reached on Mon- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Art Unit: 2626

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS

08/28/09

/Richmond Dorvil/

Supervisory Patent Examiner, Art Unit 2626